No. 80-1026

In The

Supreme Court of the United States

October Term, 1980

CHRYSLER CORPORATION,

Petitioner,

vs.

RICHARD F. DAWSON and DIANA DAWSON, individually and DIANA DAWSON as parent and natural Guardian of BRYAN DAWSON, a minor,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Third Circuit

BRIEF FOR RESPONDENTS IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

1. Does the National Traffic and Motor Vehicle Act preclude recovery against automobile manufacturers under a state's common law?

Answered negatively by the courts below.

2. Does Chrysler's failure to raise the issue of compliance or noncompliance with the National Traffic and Motor Vehicle Act during trial preclude it from raising the issue on appeal?

Answered affirmatively by the courts below.

3. Does a verdict based upon a state's application of its contract law present any question of federal law?

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Respondents Richard F. Dawson and Diana Dawson, individually and Diana Dawson as parent and natural guardian of Bryan Dawson, a minor, respectfully pray the petitioner's petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the Third Circuit filed on September 11, 1980 be denied.

OPINIONS BELOW

The opinion of the United States District Court of New Jersey is unreported and contained in Appendix A.

STATEMENT OF THE CASE

On September 7, 1974, Pennsauken, New Jersey Police Officer Richard Dawson sustained crippling injuries when his police car hydroplaned on a wet road and slid sideways into a metal pole. The impact speed was minor, 25 to 30 mph. Officer Dawson's car, a 1974 Dodge Monaco, had been advertised by Chrysler as a police pursuant car. Chrysler's brochure on this car made numerous claims of features allegedly unique to its Dodge Monaco police pursuit car, including heavier walled exhaust manifold; top performing Magnum 440 4-barrel V-8 engine; special handling package; heavy-duty police brakes; special power steering unit; torque flite transmissions for police application; new thermal torque fan drive; spool type engine mounts; extra-capacity tandem brake booster; a new 9¼ inch axle assembly; heavy-duty front torsion bars; front sway bar; special heavy-duty rear leaf seats; special isolators; unibody construction where its structural members are welded into a single unit to enhance its rugged construction; and a speedometer, certified calibrated to 140 mph.

Despite these claims, Herman Smith, Chrysler's chief of design for the bodies of Chrysler cars, testified at trial that Chrysler did no special design work for police cars (17a).

Initial point of impact with the pole was the left rear driver's side wheel well. The car, which was moving rearward, slid along the rear frame until it came to a 17 inch gap between the rear frame member and the front frame members. At that point, the car deformed around the pole, allowing the pole to rip into the passenger compartment, forcing the front seat and

Office Dawson toward the front of the vehicle until Officer Dawson's head forcibly contacted the header area. The impact caused bursting fractures of the fifth and sixth vertebra which have rendered Officer Dawson a quadraplegic.

Suit was instituted on behalf of the Dawsons in Pennsylvania State Court alleging that Chrysler was liable on two theories. First, that the design of the frame of the car was defective and Chrysler was, therefore, liable under common law principles of products liability. Second, that Chrysler breached its implied warranty to deliver a vehicle fit for the particular purpose of a police pursuit vehicle. Chrysler removed the case to the Eastern District of Pennsylvania. Then it was transferred to the District Court for the District of New Jersey where it was tried, applying New Jersey substantive law.

Under New Jersey law, the proofs required under strict tort liability and implied contractual warranty are identical. A plaintiff must prove that the product was defective and a proximate cause of injuries, and that feasible alternative design would have prevented these same injuries. In making this determination, New Jersey requires a balancing of numerous factors:

(1) The usefulness and desirability of the product—its utility to the user and to the public as a whole;

(2) The safety aspects of the product—the likelihood that it will cause injury, and the probable seriousness of the injury;

(3) The availability of a substitute product which would meet the same need and not be as unsafe;

(4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility;

(5) The user's ability to avoid danger by the exercise of care in the use of the product;

(6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions;

(7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.

At trial, a design analyst, a mechanical engineer and a biochemical engineer, agreed that the Dodge frame was totally inadequate with respect to side impacts and that a well known design alternative would have prevented Officer Dawson's injuries.

The cornerstone of Chrysler's brief rests on certain allegations with respect to this alternative design which are untrue. First, Chrysler would have this Court believe that there was evidence that the alternative design did not comply with federal standards. This is not true. As the Third Circuit noted:

> "There was no suggestion at trial that the alternative design recommended by the Dawsons would not comply with Federal safety standards." (Pet. Br. 16a).

Second, Chrysler would have this Court believe that this alternative design was untested and concocted solely for this case. This is untrue. The alternative design consisted of a cross member between the B-posts (B-post is the post or pillar between the front and rear seats) of a continuous frame. Continuous frames had been in existence for over thirty years. In 1974, 84% of the cars made in America had full frames. The addition of a

cross member to a full frame had been designed, tested and evaluated in 1969 and 1973 in tests conducted under the auspices of the United States Department of Transportation. Those results demonstrated dramatic increases in passenger protection with passenger compartment penetration reduced up to 71%. These same studies evaluated the performance of this alternative design in other impact modes and concluded:

> "It is believed that frame cross members can be effectively utilized for transferring load and dissipating energy in side collisions could be integrated with a front structure designed to control collapse in frontal impacts." (27a).

> "The need for more protective side structures was demonstrated in a directly related project effort (reported in Reference 1), in which side impact tests of conventional (unmodified) automobiles were performed. From these 'base line' tests, as well as from statistical accident data, it became abundantly clear that today's automobile generally does not offer adequate occupant protection in collisions where the principal impact loads are imposed on the side of the occupant compartment.

> Strengthening vehicle side structures, in addition to providing more effective occupant protection, can be a particularly attractive design feature since these structures do not have the potential for increasing collision 'aggressiveness' with respect to occupants of other involved vehicles, or to struck pedestrians, as may be the case for modified front structures. Furthermore, enhancing side impact crashworthiness might be a natural first step in the evolution of more

> crashworthy automobiles structures, in anticipation of front structure modifications introduced in the future that could further aggravate the side collision vulnerability problem. *It should also be noted that improved side structures could also benefit occupants in rollover accidents.*" (Emphasis added, 33a).

Chrysler would also have this Court believe that the federal motor vehicle safety standards call for certain design parameters which plaintiff's alternative design failed to meet. This is untrue. At trial, Chrysler never questioned whether the alternative design complied with federal regulations. (Since it was a minor modification to an existing frame and outperformed Chrysler's vehicles, it obviously would have complied.) Furthermore, the regulations do not specify design parameters. They merely list certain maximum forces a person's body may be subjected to in side impacts. They do not tell a manufacturer what design to use to meet these requirements. Theoretically, any configuration of design would meet these regulations as long as the person in the vehicle did not experience loads exceeding the calculated limits in a 20 mph impact.

At the conclusion of the trial, the jury concluded that (1) the body structure of the 1974 Dodge Monaco was defective and unreasonably dangerous; (2) Chrysler breached its implied warranty that the vehicle would be fit for use as a police car; (3) as a result of the defect and breach of warranty, Office Dawson sustained injuries he would not have sustained had the alternative design been utilized. Contrary to Chrysler's assertion, the jury did not set up a safety standard which varied from federal requirements. It merely concluded that Chrysler's design, one of many which could have complied with federal minimal requirements, was defective. The verdict was sustained by the District Court and by the Third Circuit Court of Appeals. Chrysler's petition for a rehearing was summarily denied.

SUMMARY OF ARGUMENT

This case presents no important question of federal law nor is there any conflict between federal courts of appeals with respect to any issues raised by Chrysler. The National Traffic and Motor Vehicle Safety Act does not preclude common law actions as it specifically states:

> "Compliance with any Federal motor vehicle safety standard issued under this subchapter does not exempt any person from any liability under Common Law." 15 U.S.C. §1397(c).

Federal preemption is not presumed. It must be clearly stated. This is especially so where the federal regulation has no mechanism for the enforcement of individual rights for personal harm. Congress has clearly intended that automobile manufacturers are subject to suits at common law.

The record does not support Chrysler's allegation that respondents' alternative design (a necessary element of proof under New Jersey law) did not comply with federal standards. In fact, the standards Chrysler relies on do not set design parameters. They specify maximum forces a passenger may be subjected to when side-impacted under certain test conditions at 20 mph. None of the federal regulations deal with the question of passenger compartment penetration. The only federally sanctioned tests dealing with passenger compartment penetration in side impacts specifically approved respondents alternative design and commented on its overall reliability in front impacts and rollovers.

Congressional purpose is not thwarted by a continuation of common law liability. Any number of designs can comply with federal regulations and yet be unsafe. A design which kept forces to acceptable levels yet exposed passengers to sharp protrusions

in the passenger compartment would obviously be unsafe. Just as defective is the design of this 1974 Dodge Monaco police pursuit car which permitted a pole to knife into the passenger area rendering this officer a quadraplegic. Congress has stated that this officer's redress is through common law liability. This Court has no choice but to follow that mandate.

Petitioner ignores the fact that this jury found that Chrysler breached its contractual duty to deliver a vehicle fit to be a police pursuit car. That duty would not be subject to the same arguments made with respect to preemption as the Act provides:

> "Nothing in this section shall be construed to prevent the Federal Government or the government of any state or political subdivision thereof from establishing a safety requirement applicable to motor vehicles or motor vehicle equipment procured for its own use if such requirement imposes a higher standard of performance than that required to comply with the otherwise applicable Federal standard." (15 U.S.C. §1392(d).

The jury concluded under New Jersey law that Chrysler breached this contractual duty to build and sell a police pursuit car. The fact that the car complied with federal requirements for passenger vehicles would be irrelevant since the Act specifically permits higher standards for cars procured for the use of a political subdivision of a state. This question is purely one of applying a state's contract laws and not be subject to review by this Court as no federal questions are presented.

REASONS FOR DENYING THE WRIT

I.

THE NATIONAL TRAFFIC AND MOTOR VEHICLE ACT DOES NOT PRECLUDE RECOVERY AGAINST AN AUTOMOBILE MANUFACTURER UNDER A STATE'S COMMON LAW.

A. Preemption

When Congress exercises a granted power, the federal legislation may displace state law under the Supremacy Clause of Article VI. But Congress does not typically act on a wholesale basis, and congressional entry into a field does not necessarily end all state authority. In considering preemption, it is vital to bear in mind an observation in Hart and Wachsler, *The Federal Courts and the Federal System*, 435 (1953):

> "Federal law is generally interstitial in nature. It rarely occupies a legal field completely . . . . Federal legislation on the whole, has been conceived and drafted on an ad hoc basis to accomplish limited objections. It builds upon legal relationships established by the states, altering or surplanting them only so far as necessary for the special purpose. Congress acts, in short, against the background of the total corpus juris of the states in much the same way that a state legislature acts against the background of common law, assumed to govern unless changed by legislation."

The legal background surrounding the National Traffic and Motor Vehicle Act (hereinafter referred to as the Act) included common law principles of products liability and breach of

warranty. Both of these concepts were well known methods of attacking the design of an automobile when the Act was passed and became law. Congress, fully aware of these principles of attacking an automobile's design, specifically provided that they would continue after the Act became law:

> "Compliance with any federal motor vehicle safety standard issued under this subchapter does not exempt any person from any liability under common law." National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C.A. §1397(c).

The legislative history of the Act confirms that it was not intended to restrict common law liability.

> "Moreover, the federal minimum safety standards need not be interpreted as restricting state common law standards of care. Compliance with such standards would thus not necessarily shield any person from product liability at common law." U.S. Code Cong. and Admin. News, 2720 (1966).

Lower courts that have dealt with the question of preemption under the Act have unanimously agreed that common law liability continues.

> "General Motors contends that any safety standards in design and equipment should be imposed as envisioned by the National Traffic and Motor Vehicle Safety Act of 1966 (Pub. L. 89-563), 80 Stat. 718, 15 U.S.C.A. §1381 et seq. Recognizing the need to reduce traffic accidents and deaths and injuries resulting therefrom, Congress found it necessary to establish motor vehicle safety standards, and by this Act set up

the machinery and administrative process to establish minimum safety standards. The purpose of this Act is manifest and the Congress recognizes in §1391(1) that the public should be protected against unreasonable risks of accidents occurring as a result of the design, construction or performance of motor vehicles and also be protected against unreasonable risk of death or injury in the event accidents do occur. Section 108(c) of the Act, 15 U.S.C. §1397(c), expressly negatives any intention of Congress to acquire exclusive jurisdiction in this field and leaves the common law liability intact. Subsection (c) reads: '(c) Compliance with any Federal motor vehicle safety standard issued under this subchapter does not exempt any person from any liability under common law.'

It is apparent that the National Traffic Safety Act is intended to be supplementary of and in addition to the common law of negligence and product liability. The common law is not sterile or rigid and serves the best interests of society by adapting standards of conduct and responsibility that fairly meet the emerging and developing needs of our time. The common law standard of a duty to use reasonable care in light of all the circumstances can at least serve the needs of our society until the legislature imposes higher standards or the courts expend the doctrine of strict liability for tort. The Act is a salutary step in this direction and not an exemption from common law liability. *Larson v. General Motors*, 391 F. 2d 495, 506 (8th Cir. 1968).

Compliance with the safety standards promulgated pursuant to the National Traffic and Motor Vehicle Safety Act, however, does not relieve Chrysler of liability in this action. For in authorizing the Secretary of Transportation to enact these standards, Congress explicitly provided, 'Compliance with any federal motor vehicle safety standard issued under this subchapter does not exempt any person from any liability under common law.' 15 U.S.C. §1397(c)(1976). *Dawson v. Chrysler,* ___ F.2d ___ (3rd Cir. 1980) [Pet. Br. 14a].

Finally, defendant argues that the national character of the automobile industry dictates that automobile design not be subject to piecemeal regulation by different juries in different states. Defendant argues that the problem of designing safe cars is for the Congress, not state courts, and that federal safety regulations established by the National Highway Traffic Administration, pursuant to the National Traffic and Motor Vehicle Safety Act of 1966, pre-empt the field of automobile safety regulation thus rendering state courts powerless to act in this area. Defendant completely overlooks, however, 15 U.S. Code, sec. 1397(c), which provides as follows:

> 'Continuation of common law liability vehicle safety standard issued under this subchapter does not exempt any person from any liability under common law.'

Thus Congress felt that federal regulations should be supplementary to the common law of

> products liability. Defendant's argument that the problem of automobile design is exclusively legislative must therefore be rejected. *Arbet v. Gussarson*, 66 Wis. 2d 551, 561, 562, 255 N.W. 2d 431 (1975). In accord, *Volkswagon v. Young*, 272 Md. 201, 321 A. 2d 737 (1974); *Buccery v. General Motors*, 132 Cal. App. Rptr. 605, 60 Cal. App. 3rd 533 (1976); *Roberts v. May*, 583 P. 2d 305 (Colo. App. 1978) Cert. Den. 8/28/78."

Against this overwhelming statement of congressional intent, Chrysler would have this Court hold that Congress implied preemption by the mere passage of a national act. This is not so. Even the case Chrysler relies upon recognizes that common law recovery under traditional tort concepts may continue in an extremely federally regulated field.

> "It is true that we have allowed the States to grant compensation for the consequences, as defined by the traditional law of torts, of conduct marked by violence and imminent threats to the public order. International Union, United Automobile, Aircraft and Agricultural Implement Workers, etc. v. Russell, 356 U.S. 634, 78 S. Ct. 932 2 L. Ed. 2d 1030; United Construction Workers, etc. v. Laburnum Const. Corp., 347 U.S. 656, 74 S. Ct. 833, 98 L. Ed. 1025. We have also allowed the States to enjoin such conduct. Youngdahl v. Rainfair, Inc., 355 U.S. 131, 78 S. Ct. 206, 2 L. Ed. 2d 151; United Automobile, Aircraft and Agricultural Implement Workers, etc. v. Wisconsin Employment Relations Board, 351 U.S. 266, 76 S. Ct. 794, 100 L. Ed. 1162. State jurisdiction has prevailed in these situations because the compelling state interest, in the scheme of our

> federalism, in the maintenance of domestic peace is not overridden in the absence of clearly expressed congressional direction. We recognize that the opinion in United Construction Workers, etc. v. Laburnum Const. Corp., 347 U.S. 656, 74 S. Ct. 833, 835, 98 L. Ed. 1025, found support in the fact that the state remedy had no federal counterpart." *San Diego Building Trades Council v. Garmen,* 359 U.S. 236, 247, 79 S. Ct. 773, 781 (1953).

In determining whether there is preemption, this Court must determine whether Congress provided mechanism under the federal Act to award damages. If such a mechanism exists and is in conflict with the common law mechanism, then there is preemption.

> "In Laburnum, in distinguishing Garner v. Teamsters, etc. Union, 346 U.S. 485, 74 S. Ct. 161, 98 L. Ed. 228, we said:
>
> > 'To the extent that Congress prescribed preventive procedure against unfair labor practices, that case recognized that the Act excluded conflicting state procedure to the same end. To the extent, however, that Congress has not prescribed procedure for dealing with the consequences of tortious conduct already committed, there is no ground for concluding that existing criminal penalties or liabilities for tortious conduct have been eliminated. The care we took in the Garner case to demonstrate the existing conflict between state and federal administrative remedies in that case was, itself, a recognition that

> if no conflict had existed, the state procedure would have survived.' 347 U.S. at page 665, 74 S. Ct. at page 838." *International Union v. Russell*, 356 U.S. 634, 644, 78 S. Ct. 932, 938 (1958).

The *International* Court, in an example delineated the nature of the legislative language which would have to exist to preempt a common law recovery for tort damages:

> "The situation may be illustrated by supposing, in the instant case, that Russell's car had been turned over resulting in damage to the car and personal injury to him. Under state law presumably he could have recovered for medical expenses, pain and suffering and property damages. Such items of recovery are beyond the scope of present Board remedial orders. Following the reasoning adopted by us in the Laburnum case, we believe that state jurisdiction to award damages for these items is not preempted. Cf. International Ass'n of Machinists v. Gonzales, 356 U.S. 617, 78 S. Ct. 923. Nor can we see any difference, significant for present purposes, between tort damages to recover medical expenses and tort damages to recover lost wages. We conclude that an employee's right to recover, in the state courts, all damages caused him by this kind of tortious conduct cannot fairly be said to be preempted without a clearer declaration of congressional policy than we find here." *Id.* at U.S. 645, 646, S. Ct. 939.

The National Traffic and Motor Vehicle Act does not provide any mechanism for an individual to recover for personal injuries resulting from the defective design of an automobile.

The only enforcement mechanism under the Act calls for an imposition of a fine on the manufacturer for failure to comply with the minimum standards set forth by the Act. 15 U.S.C.A. §1415.

The Act does not state that common law is preempted. It states that common law shall continue. There is, therefore, no preemption.

B. Frustration of Congressional Purpose

Chrysler's argument with respect to congressional purpose and interstate commerce are predicated upon a conclusion that respondents' alternative design did not comply with federal standards. This conclusion is unsupported by the record and was never raised at trial. Both the District Court and the Third Circuit Court of Appeals have held that Chrysler has waived this argument. (This topic will be treated in Point II.) Chrysler has, therefore, waived any argument predicated upon this conclusion.

Chrysler would have this Court believe that the jury in this case adopted a standard of design which conflicts with federal standards. This is not true. Under New Jersey substantive law, a plaintiff must prove the defective design and an alternative design which would eliminate the injuries the defect caused. *Huddell v. Levin,* 537 F. 2d 726 (3rd Cir. 1976).

Respondents, therefore, presented evidence of a well known design alternative which would substantially improve the Dodge Monaco police pursuit vehicles' performance in impacts. Contrary to Chrysler's argument, this design was not concocted solely for this accident. The poor performance of automobiles in side impacts was well known in the industry prior to the Dawson accident. In 1969 and 1973, the United States Department of Transportation commissioned tests to determine the

performance of alternative designs in side impacts. These tests (which postdated the Act) used minor cross member modifications to existing full frames used by General Motors and Ford. The tested designs were substantially identical to that urged by respondents. These tests (which were the only U.S. sanctioned tests produced at trial) demonstrated that these design modifications (a) reduced passenger compartment penetration by up to 71%; (b) were compatible with a front structure designed to control collapse; and (c) benefited occupants in rollover accident (18a-36a). Chrysler's statement ". . . by permitting respondents to establish a *prima facie* case of automobile design that would allegedly improve only a single feature of vehicle performance (*i.e.*, protection in side impact collisions with a stationary object) without requiring the presentation of any proof of (1) the effect of the proposed design change on crashworthiness in other types of accidents and (a) the compatibility of the design change with existing mandatory federal motor vehicle standards." (Pet. Br. 8) is totally untrue and can only be an intentional misstatement of the case, in view of what the Third Circuit noted:

> "There was no suggestion at trial that the alternative design recommended by the Dawsons would not comply with Federal safety standards." (Resp. Br. 16a).

The Act does not set design parameters. It merely sets forth maximum loads that passengers may be subject to at side impacts under certain conditions at 20 mph. There is no mention in the Act of frame design or passenger compartment penetration. 40 C.F.R. 571.208; 571.214. Ford, General Motors, a myriad of foreign cars and Chrysler all utilize different designs and all comply with the Act. Forcing Chrysler to pay damages for the failure to use a well known safer design which also complies with the Act is no more of a hindrance on congressional purpose or interstate commerce than permitting the various manufacturers to choose different designs.

Congress' purpose is best determined by the wording of the Act and the legislative background of the Act. 15 U.S.C. §1391(2) defines "Motor Vehicle Safety Standards" as

> "A *minimum* standard for motor vehicle performance, or motor vehicle equipment performance, which is practicable, which meets the need for motor vehicle safety and which provides objective criteria." (Emphasis added.)

The Act only provides minimum standards with which the manufacturer must comply. There is no mention in the Act of remedies for personal injuries or that compliance with the Act relieves a manufacturer of liability. To the contrary, the Act provides that common law liability will continue. Clearly, the purpose of the Act was not to limit a manufacturer's liability by eliminating automobile products liability lawsuits. The purpose was to set minimum safety standards to supplement continuing common law liability.

The Court of Appeals' concern with the possibility of different juries setting standards that conflict with federal purposes is unfounded and predicated in part upon Chrysler's false allegation that respondents' alternative design did not comply with federal regulations.

In an opinion letter from the National Highway Traffic Safety Administration, the Office of Chief Counsel, explains that the Act does not set forth design standards and were not meant to limit the designs available.

> "As explained below, Federal motor vehicle safety standards allow manufacturers latitude to develop a variety of designs to comply with the performance requirements set in the standards. In addition, compliance with a Federal motor

vehicle safety standard does not constitute a defense in a product liability suit.

* * *

Each of our safety standards meets the need for motor vehicle safety by specifying requirements for the performance of a particular vehicle system or item of equipment. For example, Standard No. 214, *Side Door Strength,* cited in your letter, sets certain crush resistance requirements that a passenger car must meet in static load test. It does not require the use of a specific design. Thus, manuafacturers need not use the most effective design available. They may use any design that will satisfy the performance requirements of the standard.

It also does not require that manufacturers limit their chosen design to the performance levels specified in the standard. The performance requirements are minimum, not maximum, ones. Manufacturers are free to select designs which exceed those in the safety standards.

Although our safety standards meet the need for safety, they do not necessarily attempt to solve the full extent of a particular safety problem. The static test requirements of Standard No. 214 are a prime example. Compliance with those requirements has yielded some significant benefits. However, large numbers of persons continue to be killed or seriously injured in side impact crashes. Accordingly, the agency issued an advance notice of proposed rulemaking (44 FR 70204; December 6, 1979) to explore the

possibility of replacing the existing laboratory tests with dynamic tests that simulate actual side crashes. (A copy of the notice is enclosed.)

In recognition of the foregoing factors, Congress has provided that compliance with a safety standard does not constitute a defense in a product liability suit. Section 108(c) (15 U.S.C. 1397(c)) of the Act provides that compliance with a motor vehicle safety standard 'does not exempt any person from liability under common law.' The House Report (H.R. Rep. No. 1776, 89th Cong. 2d Sess. (1966)) on section 108(c) states that, 'It is intended, and this subsection specifically establishes, that compliance with safety standards is not to be a defense or otherwise to affect the rights of parties under common law particularly those relating to warranty, contract, and tort liability.'

Likewise, compliance with a Federal motor vehicle safety standard does not presumptively mean that the design chosen by a manufacturer is safe. Congress gave the agency the authority to order manufacturers to notify owners about safety-related defects in their vehicles and to remedy those defects (15 U.S.C. 1411-1420). On occasion, the agency has required manufacturers to conduct defect notification and remedy campaigns even though the vehicle complied with applicable Federal motor vehicle safety standards." (37a-39a).

The opinion letter relied upon by Chrysler is another attempt to mislead this Court. As explained by the Chief Counsel, that opinion letter has no relevance to this case and was not intended to condone limitation of common law liability.

> "Finally, the agency's interpretation letter of November 3, 1978, cited in your letter, does not interpret section 108(c) of the Act. The letter, a copy of which is enclosed, involved the issue of whether a California motor vehicle regulation was preempted under section 103(d) (15 U.S.C. 1392(d)) of the Act by a Federal motor vehicle safety standard. Section 103(d) is limited to the effect of Federal standards on State regulations covering the same aspects of performance. Section 108(c) of the Act governs the effect of Federal standards on product liability suits." (39a, 40a).

Even if this Court were to agree with the lower court's concern with the possiblity of future ill effects, it would not be a basis for granting certioriori. The Supreme Court will not predicate its finding on hypothetical possibilities. A real conflict must exist before a case is reviewed. The lower court's concern about future possibilities does not constitute such a conflict.

> ". . . we see no reason to strike down otherwise valid portions of the Act simply because other portions might not be constitutional as applied to hypothetical future cases. At the same time, we decline to be drawn into an abstract discussion of the numerous complex issues that might arise in connection with the Act's various remedial provisions. They are almost impossible and most unnecessary to resolve in advance of particular facts, stated claims, and identified plaintiffs and defendants. *Maryland v. Wertz*, 392 U.S. 183, 200, 88 S. Ct. 2017, 2026 (1968)."

C. Burden on Interstate Commerce

Under New Jersey law, as applied in this case, numerous factors had to be weighed before the establishment of a *prima facie* case. Those factors include:

> "(1) The usefulness and desirability of the product—its utility to the user and to the public as a whole;
>
> (2) The safety aspects of the product —the likelihood that it will cause injury, and the probable seriousness of the injury;
>
> (3) The availability of a substitute product which would meet the same need and not be as unsafe;
>
> (4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility;
>
> (5) The user's ability to avoid danger by the exercise of care in the use of the product;
>
> (6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions.
>
> (7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance. *Dawson v. Chrysler, supra* (Pet. Br. 12a).

Petitioner presented proof of all these items including the aforementioned government studies which pointed out the defect and tested petitioner's alternative design. Contrary to Chrysler's contention, this case was not an analysis of one aspect of this frame's design, nor would New Jersey law permit such an analysis. Proof of the alternative design's ability, overall performance, cost and usefulness was required and presented.

Chrysler's contention that it must now utilize petitioner's alternative design in New Jersey and some other design in some other state is as unsupported by the record as it is absurd.

Common law products liability as applied to automobile design defects effecting crashworthiness of a vehicle is essentially identical throughout the United States. *See Huff v. White Motor Co.*, 565 F. 2d 104 (7th Cir. 1977) and cases cited therein. While the proofs required of a plaintiff are stringent and include an alternative safer design, the jury does not set a standard. The jury merely decides whether the automobile's design was defective. Any number of designs can comply with federal regulations and yet be unsafe. A design with sharp protrusions in the passenger area could comply with the minimum load requirements, yet expose the passenger to a lethal hazard in a "second collision" situation. Federal regulations were not meant to be nor are they all inclusive. Petitioner's alternative design was not demonstrated to violate any federal safety regulations. When a regulation permits a multitude of designs, forcing a manufacturer to pay civil damages for failure to choose a known safe design, it does not interfere with or impose an unreasonable and constitutional objectionable burden on interstate commerce.

Bibb v. Navajo Freight Lines, 359 U.S. 520, 79 S. Ct. 962 (1959) and the remaining cases relied on by Chrysler, tested *affirmative* state regulations which denied a carrier access to a state's highway and/or railways. Because those regulations were inconsistent with other state's regulations and compliance with

one regulation would deny a carrier access to another state, the regulations were declared an undue burden on commerce. There is no such affimative regulation or burden in this case. Chrysler may continue to sell Dodge Monacos in New Jersey and throughout the United States.

Chrysler is asking this Court to declare unconsitutional 15 U.S.C. §1397(c) which calls for continuation of common law liability because that provision might be construed in a manner that would burden commerce. This construction violates the rule that statutes must be construed to avoid constitutional questions. *Ullman v. United States,* 76 S. Ct. 497, 350 U.S. 422 (1956), *reh. denied,* 76 S. Ct. 777, 351 U.S. 928; *Time v. Hill,* 87 S. Ct. 534, 385 U.S. 374 (1967).

> "The Supreme Court has repeatedly warned 'if a serious doubt of constitutionality is raised, it is a cardinal principle that this Court will first ascertain whether a construction of the statute is fairly possible by which the question may be avoided.' Indeed, the Court has stated that words may be strained 'in the candid service of avoiding a serious constitutional doubt'. Here there is no need to strain words. It requires neither torturing of language nor disregard of a clear legislative policy to avoid the constitutional question advanced by the witness. Indeed, to reach the constitutional issue would require straining of language. In such circumstances the court's duty is plainly to avoid the constitutional question." *Ullman, supra* at S. Ct. 605, U.S. 433.

Applying this rule of construction, the Act must be constitutional as Chrysler is free to sell its cars in any state it chooses. There is, therefore, no undue burden on commerce.

II.

CHRYSLER'S FAILURE TO RAISE THE ISSUE OF COMPLIANCE OR NON-COMPLIANCE WITH THE NATIONAL TRAFFIC AND MOTOR VEHICLE ACT DURING TRIAL PRECLUDES IT FROM RAISING THE ISSUE ON APPEAL.

The majority of Chrysler's arguments are predicated upon an allegation that respondents were able to prove their case without showing compliance with the Act and/or that petitioner's design did not comply with the Act. At trial, however, Chrysler never even questioned compliance. Since respondents' alternative design was a minor modification to existing autos which complied with the Act and since the alternative design outperformed vehicles in compliance, there was no question but that it would have complied.

Both the District Court and the Third Circuit have clearly ruled that Chrysler, by its tactical decision not to raise the issue at trial, has waived it on appeal.

> "Chrysler also argues that there is no evidence that plaintiff's alternative design meets federal standards, and therefore could not be the practical alternate that New Jersey law requires. Plaintiff has pointed to no expert testimony indicating the alternate design would meet federal standards; however, there is nothing in the record to indicate that the alterations proposed would take the car from within the guidelines. Defendant, during trial, failed to cross examine on this issue, nor did it introduce any evidence to demonstrate noncompliance. It is too late for defendant to raise this argument." (Opinion of District Court, 4a).

> "There was no suggestion at trial that the alternative design recommended by the Dawsons would not comply with federal safety standards." (Pet. Br. 16a).

Since Chrysler has been deemed to waive any issues with respect to compliance of the alternative design with federal standards or a duty to provide compliance with said standards, it has waived its right to argue any of the questions it presents to this Court as each is predicated upon a conclusion that proof was lacking on one of these issues, to wit:

> 1. Whether the National Traffic and Motor Vehicle Safety Act, which expressly preempts the state from establishing any safety standard that is not identical to federal motor vehicle safety standards governing the same aspect of vehicle performance, 15 U.S.C. §1392(d), precludes individual juries in product liability actions *from adopting safety standards under state common law that are not identical to applicable federal motor vehicle safety standards?*

> 2. Whether the objectives of the National Traffic and Motor Vehicle Safety Act, 15 U.S.C. §1381, *et seq.*, to improve vehicle safety and establish national uniformity in vehicle safety standards are frustrated when a state permits individual juries to adopt safety standards in common law product liability actions *without requiring proof that such standards will improve overall vehicle crashworthiness and will comply with mandatory federal motor vehicle safety standards*?

> 3. Whether a state common law standard for assessing liability for automotive designs that does not *require petitioners to prove that their proposed alternative designs will improve overall vehicle*

> *crashworthiness and will comply with mandatory federal motor vehicle safety standards* poses an unconstitutional burden on interstate commerce by promoting adoption of inconsistent and conflicting safety standards by individual juries in various states?

Since Chrysler did not raise these issues at trial, they are precluded from arguing them on appeal. *Porter v. American Export Lines,* 387 F. 2d 409 (3rd Cir. 1968); Federal Rules of Civil Procedure, Rule 51.

III.

A VERDICT BASED UPON A STATE'S APPLICATION OF ITS CONTRACT LAW PRESENTS NO QUESTION OF FEDERAL LAW.

This jury's verdict was also based upon Chrysler's breach of its contractual duties to deliver a vehicle fit to be a police pursuit car to Pennsauken Township, a political subdivision of New Jersey and the employer of Officer Dawson. Section 1392(d) of the Act provides:

> "Nothing in this section shall be construed to prevent the Federal Government or the government of any State or political subdivision thereof from establishing a safety requirement applicable to motor vehicles or motor vehicle equipment procured for its own use if such requirement imposes a higher standard of performance than that required to comply with the otherwise applicable Federal standard."

The fact that the Dodge Monaco police pursuit car complied with federal requirements is, therefore, irrelevant to the question of whether this vehicle qualified as a police pursuit car.

There was evidence at trial that Pennsauken ordered two separate classes of cars from Chrysler: unmarked passenger cars and police pursuit cars (15a). Chrysler made specific claims with respect to these police cars which it did not make with respect to the unmarked passenger cars. The township's ordering of these pursuit cars was predicated upon those claims which included claims of rugged construction and high speed capability. Chrysler's chief of design testified that no special design was done for police pursuit cars as opposed to any other vehicles (17a).

Chrysler did not attack the fact that the jury's verdict is based on breach of contract. Since the Act states that a subdivision of a state, such as Pennsauken, may require standards in excess of federal standards, then compliance with the Act is irrelevant and Chrysler does not have legitimate arguments with respect to preemption or interference with interstate commerce.

Pennsauken and Chrysler were free to set any standards in excess of the federal requirements that they choose. The setting of these standards would not hinder commerce since the standards would only apply to the pursuit cars delivered to Pennsauken. They would not apply to passenger cars or to police cars in other townships or states. It was solely a question of what Chrysler and Pennsauken agreed to do by the terms of their contract. The contract had only local effect with no ripples in the stream of commerce.

A state's interpretation of parties' rights under a contract presents no issues of federal law. The contract does not abridge any individual or other constitutional rights. It does not effect any other parties other than the two parties to the contract. The provisions of the contract are not violative of any federal regulations or purpose since the Act provides that this class of parties may agree to terms in excess of the federal requirements.

Chrysler has not listed any reasons for overturning this private contract in its writ nor could it as it would be barred by its prior failure to raise any question of the constitutionality of this private contract.

Since this verdict can be sustained upon the non-constitutional question of the application of New Jersey's contract law, the alleged constitutional issues would not be decided.

> "We need not consider respondent's contention that only the jurisdictional question was presented by the petition for certiorari, for in reversing on the above ground we follow the traditional practice of this Court on refusing to decide constitutional questions when the record discloses other grounds of decision, whether or not they have been properly raised before us by the parties. See Peters v. Hobby, 349 U.S. 331, 338, 75 S. Ct. 790, 793; Alma Motor Co. v. Timken-Detroit Axle Co., 329 U.S. 129, 132, 136, 153, 67 S. Ct. 231, 232, 233, 236, 91 L. Ed. 128." *Neese v. Southern Railway,* 350 U.S. 77, 78, 78 S. Ct. 131, 132 (1955).

CONCLUSION

Justice Frankfurter commented in *Maryland v. Baltimore,* 338 U.S. 912, 917, 918 (1950) upon the reasons that a petition for certiorari is denied. They include:

> "Narrowly technical reasons may lead to denials. Review may be sought too late; the judgment of the lower court may not be final; it may not be the judgment of a State court of last resort; the decision may be supportable as a

> matter of State law, not subject to review by this Court, even though the State court also passed on issues of federal law. A decision may satisfy all these technical requirements and yet may commend itself for review to fewer than four members of the Court. Pertinent considerations of judicial policy here come into play. A case may raise an important question but the record may be cloudy. It may be desirable to have different aspects of an issue further illumined by the lower courts. Wish adjudication has its own time for ripening."

In the case at bar, the record does not support petitioner's claims. The federal statute which allegedly preempts provides for continuation of common law and the verdict can be supported by state law. There is no compelling reason to grant certiorari.

Respectfully submitted,

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APPENDIX A — OPINION OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW JERSEY AT CAMDEN, NEW JERSEY

DOCKET NO. 76-1651

RICHARD F. DAWSON and DIANA DAWSON,

Plaintiffs,

vs.

CHRYSLER CORPORATION, TOWNSHIP OF PENNSAUKEN, DELTA LEASING COMPANY and CHERRY HILL DODGE, INC., CUMBERLAND MUTUAL FIRE COMPANY & PEERLESS INSURANCE COMPANY,

Defendants.

TRANSCRIPT of the above captioned matter was taken before the Honorable Stanley S. Brotman, Judge, United States District Court, District of New Jersey, Camden, New Jersey, January 25, 1979.

* * * *

APPEARANCES:

LOUIS A. VERONICA, ESQUIRE,
BY: JAMES BEASLEY, ESQUIRE
For the Plaintiffs.

EDWARD R. MURPHY,
ESQUIRE

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BY: FRANCIS MARSHALL, ESQUIRE
For defendants Delta Leasing & Cherry Hill Dodge

MESSRS. BLEAKLY, STOCKWELL & ZINK,
FREDERICK FITCHETT, ESQUIRE
BY: HARRY SHORT, ESQUIRE,
For Defendant, Chrysler Corporation

THE COURT: On October 20, 1978, a jury rendered a verdict for plaintiffs in this action, Dawson versus Chrysler Corporation civil number 76-1651. Now defendant Chrysler Corporation moves for a judgment notwithstanding the verdict, Federal Rules of Civil Procedure 50 (b), and in the alternative for a new trial, Federal Rules of Civil Procedure 59 (a). Defendant has supported its motions by two briefs and oral argument, asserting numerous grounds for relief from judgment.

The Court will consider the judgment n.o.v. motion first. Chrsyler's primary argument on behalf of this motion is that this Court must hold, as a matter of law, that Chrysler had no duty to design a safer automobile in this circumstance. In my October 16, 1978, opinion on Chrysler's directed verdict motion, I stated that *Huddell versus Levin*, 537 F. 2d 726 (3rd Circuit 1976) and *Cepeda versus Cumberland Engineering Co., Inc.*, 76 N.J. 152 (1978) indicated that only the question of a general duty was for the court, and furthermore, that the law was that an automobile manufacturer had a general duty to manufacture a reasonably crashworthy vehicle. The jury then determines what specific duty was owed in the particular case, that is, whether the manufacturer failed in a particular way to provide a reasonably crashworthy vehicle, and whether that failure caused the injury. See Transcript XIV at page 14.

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Chrysler provides several "factors" which it urges this Court to consider in assessing its duty to plaintiffs. The Court finds that none of these factors changes its holding explained at length in the directed verdict opinion, that plaintiffs were owed a general duty to be sold a crashworthy vehicle, and that plaintiffs had produced a prima facie case for the jury that Chrysler breached its particular duty in this instance.

Chrysler first contends that the complexity of the defect charged prevents the jury from considering defendant's duty to provide a better design. The Court can certainly not accept this proposition, as it would effectively overrule *Huddell* and *Cepeda* for certain types of accidents. While the complexity of the defect involved may require more intricate and elaborate proofs from a plaintiff, it cannot eliminate his ability to recover entirely. Chrysler argues that "the prosecution of a lawsuit is a poor way to design a motor vehicle." It certainly is, given that such lawsuits normally arise only after a defective vehicle has caused injury or death. But the law is concerned with compensating these victims, as well as with deterrence to manufacturers. And for the latter goal, the Court's role under New Jersey law is only to provide adequate instructions to the jury on applying the *Cepeda* risk/utility factors, and the jury makes the final decision.

Defendant next contends that the Court should consider the fact that Chrysler has met the standards set by the National Highway and Traffic Safety Administration. However, there are no standards specifically covering a frame and body's ability to withstand side impacts. Furthermore, the federal statute authorizing standards itself says that "compliance . . . does not exempt any person from any liability under common law." 15 U.S.C. Section 1397(c).

Chrysler also argues that there is no evidence that plaintiff's alternative design meets federal standards, and therefore could not be the practical alternate that New Jersey law requires. Plaintiff has pointed to no expert testimony indicating the alternate design would meet federal standards; however, there is nothing in the record to indicate that the alterations proposed would take the car from within the guidelines. Defendant, during trial, failed to cross examine on this issue, nor did it introduce any evidence to demonstrate noncompliance. It is too late for defendant to raise this argument. The Court finds nothing in *Cepeda* to indicate that plaintiff's burden of production extends to this issue even where a defendant does not raise it during trial.

Next Chrysler contends that the Court should consider the safety features of other automobiles in determining Chrysler's duty. But the Court does not see this as within its review of Chrysler's general duty. Rather, the level of performance of the industry is to be considered by the jury, and evidence on that issue was presented by the plaintiffs, as well as the defendant. And it has been the law since the landmark *T.J. Hooper* case, 60 F. 2d 737 (2nd Circuit 1932). An opinion authored by Judge Leonard Hand, not Judge Friendly that the state of the art is only evidence of negligence, not an absolute defense. See also *McComish versus DeSoi,* 42 N.J. 274, 282 (1964).

Finally, Chrysler contends that the accident at issue here was bizarre. While the Court agrees that the defendant's general duty does not extend to bizarre accidents, the Court finds that this accident was not in that category. There is proof that various organizations ran tests on accidents similar to this collision. The speed was not bizarre, but only a relatively slow 30 miles per hour. The object impacted, a fixed pole, is common along highways, and the angle and attitude of the car at the time

of impact does not seem unusual. This accident is well within the realm of foreseeable collisions for which defendant is charged with a duty to provide reasonable protection.

For the reasons expressed, the Court holds that Chrysler did have a general duty to plaintiff, and that the case could be sent to the jury.

Chrysler makes several other attacks at plaintiff's case to justify a reversal. It first argues that plaintiffs simply failed to make a prima facie showing of a defect. In support of this, Chrysler contends again that this matter is simply too complex to go to a jury. I have already answered this argument. Chrysler also charges that plaintiffs did not adequately show in several respects how their alternate design would function. The Court stands on its position stated in its directed verdict opinion, Transcript at 25-30, that plaintiffs produced a prima facie case of alternate design. As was stated in that opinion, the Court refuses to interpret *Cepeda* as creating so many proof requirements intechnical areas as to make it seriously impractical or prohibitively expensive for a plaintiff to win a case. Transcript at 13.

Chrysler next argues that it should not be liable because it followed certain design specifications provided by the Township. Chrysler cites *Sanner versus Ford Motor Co.*, 144 N.J. Super. 1 (1976). But in *Sanner*, the specifications specifically requested that no roll bar or seat belts be provided, and the lack of that equipment specifically caused the accident. Here, the specifications did not reach the frame and structure of the car, instead the Township relied on Chrysler's legal duty to include a reasonably safe structure. *Sanner* is inapplicable.

Chrysler also charges that plaintiffs' expert testimony was inconsistent on certain causation issues. The Court stands on its

directed verdict opinion, Transcript at 16-19, to answer these renewed arguments. The same can be said concerning Chrysler's argument concerning the fact that the injury likely took place after the peak in deceleration forces; see Transcript at 19-20. Furthermore, the Court does not find that plaintiff introduced a fourth theory of liability in its summation.

Chrysler argues that plaintiff produced no evidence concerning the effect of the tubular structure. This is not so. Transcript X at 10; Transcript XI at 58. The plaintiffs also produced sufficient testimony of enhanced injuries, and defendant's objection there is not well taken. Lastly, Chrysler complains that plaintiffs failed to produce evidence that the vehicle was not substantially changed. I addressed this point, too, in the directed verdict motion opinion. Transcript at 21-25. And the jury was properly instructed on substantial change and causation in relation to the divider and the seat belt. Transcript, of Charge at 29-31.

The motion for a judgment notwithstanding the verdict must be denied.

Turning to the new trial motion, the Court will first enunciate the standard of review to be applied to those allegations of error supporting the motion. See 11 *C. Wright & A. Miller,* Federal Practice and Procedure Section 2805 at 38-41:

> "Any error of law, if prejudicial, is a good ground for a new trial.
>
> "A principle that strikes very deep is that a new trial will not be granted on grounds not called to the Court's attention during the trial unless the error was so fundamental that gross

injustice would result. This principle has particular application to claims of error in instructions that were not objected to since it is stated in so many words in Rule 51 but the principle also has been applied to a variety of other kinds of claimed errors . . .

"The importance of Rule 61 in its application to motions for a new trial cannot be overlooked. It provides specifically that no error 'is ground for granting a new trial or for setting aside a verdict * * * unless refusal to take such action appears to the Court inconsistent with substantial justice.' It further admonishes the Courts to 'disregard any error or defect in the proceeding which does not affect the substantial rights of the parties.' Thus it is only those errors that have caused substantial harm to the losing party that justify a new trial. Those errors that are not prejudicial do not call for relief under Rule 59."

Chrysler's first charge of error is that the Court erroneously allocated peremptory strikes to the jury members. Under 28 U.S.C. Section 1870, the Judge may allow more than three challenges, and require challenges to be exercised jointly where there are multiple plaintiffs or defendants. See *Blount versus Plovidba*, 567 F. 2d 583, 585 (3rd Circuit 1977). Thus in *Moore versus South African Marine Corp., Ltd.*, 469 F. 2d 280 (5th Circuit 1972), the Appellate Court found no error where the trial court gave the defendant and third-party defendant the same number of challenges, when combined, as the plaintiff. The Court said it was within the trial Court's discretion. Identified at

281. *Accord, Standard Industries, Inc. versus Mobil Oil Corp.*, 475 F. 2d 220, 225 (10th Circuit 1973); 9 Federal Practice and Procedures, *supra,* Section 2483 at 474.

Defendant contends that the Court's allocation was essentially an abuse of its discretion because "the interests of the third-party defendants and the defendant were adverse to each other." Obviously, parties on either side of a third-party complaint have adverse interests to a certain extent. But here the Court found, in its discretion, that the primary conflict was between the plaintiff, who intended to show that he was injured because of a breach of duty by one of the defendants rendering the automobile defective and the defendants, who had to show the opposite.

It should also be noted that Chrysler failed to object to the allocation of peremptory strikes at the time. This forecloses an objection at this time. *Giffin versus Ensign,* 234 F. 2d 307, 316 (3rd Circuit 1956); 11 Federal Practice and Procedures *supra,* Section 2805 at 39. This is not a case of gross injustice where an exception to this rule might apply.

The next alleged error is that the Court improperly restricted the defendant from cross-examining plaintiffs' witnesses on the cause of the collision itself. This was indeed proper because plaintiffs introduced no evidence linking Chrysler to the occurrence of the collision itself, and eventually granted a directed verdict on all charges relating to the "first collision." Transcript XIV at 4-6. Additionally, the jury was charged that "plaintiffs do not contend that defendant Chrysler, in any way, is responsible for the Dawson operated vehicle going out of control and leaving the highway. . . ." See Transcript at 13.

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As the cause of the "first collision" was not at issue, such cross-examination has no substantive relevance. There is no showing that the Interrogatories defendant sought to introduce contradicted or would contradict plaintiff's testimony so that they would be relevant for impeachment purposes. In fact, there is nothing to show that plaintiff's testimony could be reasonably challenged on credibility grounds. On the other hand, cross-examination on the cause of the "first collision," an issue irrelevant to this case, would be prejudicial and misleading, and was properly excluded under Federal Rules of Evidence 403. This was the basis of my ruling at the time. See Transcript II at 112.

Chrysler next object that plaintiffs' three experts were allowed to testify outside the scope of their expert opinions, and that defendant was unfairly prejudiced thereby. The Court finds that there was no significant surprise or incurable prejudice resulting from any discrepancy from the short expert reports since the testimony introduced no substantially different theory or covered any subject matter not reasonably within the expert's field and qualifications. The Court also finds no bad faith by plaintiffs in introducing expert testimony. Concerning the testimony of Dr. Albert Burstein, see Transcript XII at 141-42; Transcript XIV at 21. Thus exclusion of evidence was not justified for any expert under the standards set in *DeMarines versus KLM Royal Dutch Airlines*, 580 F. 2d 1193, 1201-02 (3rd Circuit 1978) and cases cited therein. Defendant has cited no cases supporting its position.

Defendant also object that expert Byrol Bloch was unqualified. The Court ruled on his qualifications, see Transcript VII at 3-14, and kept his testimony within the boundaries set by that ruling.

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Chrysler contends error was committed by allowing testimony on the alleged rupture of the gas tank of the Dawson vehicle. See Transcript VII at 51. But there was no testimony that the alleged rupture had anything to do with the plaintiff's injuries, so no unfair prejudice could have arisen.

Defendant next argues that plaintiffs were erroneously allowed to change the theory of their case by alleging a Section 402B violation. The Court stands by its opinion already rendered on this objection. See Transcript I at 49-55. Furthermore, the Section 402B claim was later dismissed from the case, see Transcript XIV at 10. Defendant also contends that the Court sua sponte enlarged plaintiffs' theory of recovery by including liability for the second collision. But the Complaint can readily be construed to mean liability for the first and second collision within the term "accident." This determination was, in fact, made in response to defendants' motion for directed verdict, not sua sponte by the Court. See Transcript XIV at 5-6.

Chrysler charges error in the Court's allowing the jury to take exhibit P-107 into the jury room. This did indeed violate Federal Rules of Evidence 803 (18). However, the Court finds that the presence in the jury room of a simple chart, which had been the subject of testimony on a tiny aspect of the defect issue, to be clearly harmless error not inconsistent with substantial justice. This it does not justify a new trial. Federal Rules of Civil Procedure 61. The error is not compounded by plaintiffs' counsel referring to the chart during summation because he would have been allowed to include such statements in his closing anyway.

Defendant also argues that plaintiff should not have been allowed to cross-examine defense witnesses on reports P-110 and P-111 because they were not established as reliable authority by

those defense witnesses. Rule 830 (18). However, they were established by reliable authority to the satisfaction of the Court, Rule 104 (a), when they were first used by the defendant in its cross-examination of plaintiffs' witness, Dr. Steven Batterman. See Transcript X at 121-23. Defendant's used the Calspan report to cross-examine Dr. Batterman, and there was no objection by plaintiffs as to its use. Such use indicated to the Court agreement that the report was authoriatative, and the Court accepted this conclusion. It also applied this conclusion of authority to the first volume of the same report absent any specific denial of same by defense counsel or witnesses.

Even if erroneously admitted, the reports were such a small part of the expert testimony as to be harmless error within Rule 61.

Defendant next makes several objections to the jury charge. First, it objects to the breach of implied warranty charge, contending that 12 of plaintiffs' complaint referred only to the first collision. But as I stated a moment ago, the term "accident" reasonably pertains to injuries from the first and second collisions.

Chrysler states the Court should have charged the jury that compliance with federal safety standards is not conclusive evidence that the vehicle was not defective. I did charge that conformity with standards is not conclusive evidence "as to whether or not Chrysler Corporation designed and sold a product in a defective condition. . . ." See Transcript at 24-25. Accordingly, the suggested charge was indeed given. Chrysler also contends that the Court should have told the jury that an alternate design should have complied with federal standards. This is proper jury argument, but there is no law compelling its

inclusion in the charge. Furthermore, defendant did not timely state an objection on this ground. Federal Rules of Civil Procedure 51.

Chrysler argues that the seat belt instruction was improper as the Court should have emphasized that the belt is one of the design characteristics of the car to be considered under the *Cepeda* analysis. But the charge did refer to *all* safety features. See Transcript at 28. And the special instruction concerning failure to use the seat belt as a voluntary and unreasonable encounter of a known risk, Transcript at 30, and defendant's burden of proof thereto, is pursuant to language in *Cepeda* affirming use of that doctrine as a defense in design defect cases. 76 N.J. at 182-92. See also Transcript XIV at 23-24. Furthermore, defendant did not state a timely objection to the part of the charge placing the burden of proof on defendant on the unreasonable encountering issue. Transcript at 51. Chrysler also claims that the Court should have charged the jury that inflation would drive up both costs and interest rates on money invested. But the Court did so charge the jury. See Transcript at 37-38.

Chrysler finds error in the Court giving the factor 29.52 to the jury. But this was properly based on an example given by plaintiffs' actuary, Transcript XI at 170, and the Court explicitly stated that the jury could accept or reject the figure. Transcript at 38. Of course, the actuary did testify that interest rates as well as costs would be pushed up by inflation. Transcript XI at 165, and the jury charge reflected this possibility, see Transcript at 37-38. But there was no error, as Chrysler alleged, in not telling the jury that the factors must cancel out. That would be incorrect. Instead, the Court properly instructed the jury concerning both possibilities, and added that the jury must makes its own decision.

Finally, there was no error in not explicitly instructing the jury that Mrs. Dawson could not recover for pain and suffering. There is no authority saying that the Court must delineate what cannot be recovered here. The Court proceeded properly in limiting its remarks to a delineation of what Mrs. Dawson could properly recover. See Transcript at 42-43. There was no error in the jury charge.

Chrysler alleges that use of the charts by plaintiffs during their summation was improper under New Jersey law. However, *Tenore versus Nu Car Carriers*, 67 N.J. 466, 482-82 (1975) only prevents counsel and the Court from giving the jury gross figures. It does not prevent a chart showing the number of years of life expectancy and undisputed annual figures for medical costs and lost wages. *Botta versus Brunner*, 26 N.J. 82 (1957) is inapplicable because it applies only to paid and suffering. No figures for that element of damages were given on the charts. The jury was instructed that it must weigh the evidence and decide in its judgment whether to accept or reject any figures provided. See Transcript at 36-38. There was no error.

Defendant objects to the award of pre-judgment interest. Defendant's brief states nothing that was not raised in its prior brief on this issue. Accordingly, the Court stands on its earlier opinion, issued from the bench on November 17, 1978.

Chrysler's final point is that the verdict was against the weight of the evidence. The Court is well aware it must "not sit to approve miscarriages of justice" by ignoring an improper verdict. 11 Federal Practice and Procedures, *supra* Section 2806 at 49. And the Court is also mindful that it must carefully scrutinize a verdict where "a trial is long and complicated and deals with a subject matter not lying within the ordinary knowledge of jurors. . . ." *Lind versus Schenley Industries, Inc.*, 278 F. 2d 79, 90 (3rd Circuit), cert. denied, 364 U.S. 835 (1960).

Yet the Court must also remember that "the trial judge is negating the jury's verdict has, to some extent at least, substituted his judgment of the facts and the credibility of the witnesses for that of the jury. Such an action effects a denigration of the jury system and to the extent that new trials are granted the Judge takes over, if he does not usurp, the prime function of the jury as the trier of the facts." *Lind,* 278 F. 2d at 90. "(A) decent respect for the collective wisdom of the jury, and for the function entrusted to it in our system, certainly suggests that in most cases the Judge should accept the findings of the jury, regardless of its own doubts in the matter." 11 Federal Practice and Procedures, *supra,* Section 2806 at 49. Furthermore, "The New Jersey cases manifest a policy liberally favoring jury resolution of defectiveness issues, as well as causation issues, in products liability cases. *Huddell,* 537 F. 2d at 736.

Plaintiffs produced qualified experts providing convincing opinion that Chrysler's design was unreasonable and defective for this type of vehicle. Proofs were lengthy and elaborate. The verdict does not defy the Court's common sense. While a verdict for defendant might also have withstood a new trial motion, the Court cannot find that a verdict for plaintiffs was so against the weight of all the evidence as to warrant the Court taking the decision away from the jury. The motion for a new trial is denied.

The appropriate order will be entered.

APPENDIX B — PURCHASE SPECIFICATIONS

PENNSAUKEN, NEW JERSEY

PURCHASE
DETAILED SPECIFICATIONS

1. *GENERAL:* It is the intent of this specification to describe and govern the purchase by the Township of Pennsauken, New Jersey, hereinafter termed the Buyer, nine (9) police cruiser vehicles and six (6) unmarked conventional cars in accordance with the terms and conditions in this specification.

   The vehicles shall be unused 1974 models and shall be delivered to the Buyer by the successful bidder, hereinafter termed the Seller, within fifteen (15) days after the contract is signed. Delivery of four (4) police cruiser Vehicles is required no later than January 15, 1974. Delivery of remaining cars is required by January 31, 1974.

   The Seller shall provide a one year maintenance contract to cover the maintenance set forth in this specification payable in twelve equal installments, and this maintenance service must be provided within ten (10) miles of the Township of Pennsauken.

2. *BID DEPOSIT:* All bids must be accompanied by a certified check in the amount of at least ten percent (10%) of the total bid, but in no case in excess of $10,000.00 which shall be forfeited if the successful bidder fails to enter into a contract with the Township of Pennsauken after notice of acceptance of his proposal.

Appendix B

PERFORMANCE BOND: All bidders must submit with their bid a statement from their Surety Company showing that they have a binding commitment, and will if awarded a contract, issue to the Township of Pennsauken at the time the contract is executed, a Performance Bond in the amount of 100% of the total contract price.

3. *EXCEPTIONS TO SPECIFICATIONS:* Any exceptions to this specification must be explained fully in a bid letter.

APPENDIX C — TRIAL TESTIMONY OF HERMAN SMITH

Answer: Well, you know, this is a little hard to put, but a taxi cab is a taxi cab. We don't do any special design for a taxi cab. We don't do any special design for a police car. If these things happened, they happened by osmosis or something, and if it is a minor little thing like splitting a molded headliner, that doesn't mean anything to us, it is an easy thing to accomplish, just split the headliner and put the molding over it. It would never come to my attention. Taxi cabs always want a mirror through the windshield piller. I am familiar with that because we have to test after the hole is through the windshield piller to be sure that the car is structurally sound. If reinforcement is required we put it in there. If it takes additional welding then that is put in there. But here is no big input into the production design room on police cars.

MR. THISTLE: Okay, thank you.

- - -

(At which time the court reporter completed reading the deposition.)

APPENDIX D — EXHIBIT P-110, TECHNICAL REPORT

TECHNICAL REPORT

BASIC RESEARCH IN AUTOMOBILE CRASHWORTHINESS— TESTING AND EVALUATION OF MODIFICATIONS FOR SIDE IMPACTS

By: Richard P. Mayor and Kenneth N. Naab

CAL No. YB-2684-V-3

Prepared For:

Department of Transportation
Federal Highway Administration
National Highway Safety Bureau
Washington, D.C. 20591

INTERIM TECHNICAL REPORT

Contract No. FH-11-6918
November 1969

CORNELL AERONAUTICAL LABORATORY, INC.
OF CORNELL UNIVERSITY, BUFFALO, N.Y. 14221

Appendix D

CORNELL AERONAUTICAL LABORATORY, INC.
4455 GENESEE STREET
BUFFALO, NEW YORK 14221
(716) 632-7500

INTERIM TECHNICAL REPORT
BASIC RESEARCH IN AUTOMOBILE CRASHWORTHINESS—
TESTING AND EVALUATION OF MODIFICATIONS FOR SIDE IMPACTS

By
RICHARD P. MAYOR
KENNETH N. NAAB
OF THE
TRANSPORTATION RESEARCH DEPARTMENT

CAL REPORT NO. YB-2684-V-3
CONTRACT NO. FH-11-6918

NOVEMBER 1969

Prepared for:

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
NATIONAL HIGHWAY SAFETY BUREAU
WASHINGTON D.C. 20591

Appendix D

FOREWARD

This report presents the results of the side impact studies as developed under the Basic Research in Crashworthiness Program. The objective of the overall program is to develop and test automobile structural configurations that will (1) reduce intrusions into the occupant compartment, (2) produce more nearly uniform crush characteristics, and (3) satisfy the strength and stiffness requirements of normal operating conditions. The results of the research will be used to explore the feasibility of an automobile crashworthiness standard to reduce penetration of the passenger compartment by outside objects and, at the same time, more efficiently utilize energy absorption principles.

The overall objectives are to be accomplished by making modifications on recent production automobiles. Three other concepts have been developed within the program. These are a forward structure modification, an engine deflection concept and a rear engine vehicle simulation.

The findings of the overall program are presented in the following series of reports:

"Basic Research in Automobile Crashworthiness — Testing and Evaluation of Forward Structure Modification Concept", CAL Report No. YB-2684-V-1;

"Basic Research in Automobile Crashworthiness — Testing and Evaluation of Engine Deflection Concept", CAL Report No. YB-2684-V-2;

"Basic Research in Automobile Crashworthiness — Testing and Evaluation of Modifications for Side Impacts", CAL Report No. YB-2684-V-3;

Appendix D

"Basic Research in Automobile Crashworthiness — Testing and Evaluation of Rear Engine Concept", CAL Report No. YB-2684-V-4;

"Basic Research in Automobile Crashworthiness — Analytical Studies", CAL Report No. YB-2684-V-5;

"Basic Research in Automobile Crashworthiness — Summary Report", CAL Report No. YB-2684-V-6.

The reported research was performed under Contract No. FH-11-6918 with the National Highway Safety Bureau, Federal Highway Administration, U.S. Department of Transportation. The opinions, findings and conclusions expressed in this report are those of the authors and not necessarily those of the National Highway Safety Bureau.

This report has been reviewed and is approved by:

s/ Edwin A. Kidd
Edwin A. Kidd, Head
Transportation Research
Department

Appendix D

SUMMARY

The side structures of several frame-type automobiles were modified with the objective of achieving constant deceleration without excessive passenger compartment intrusion. A review of actual accident cases showed evidence of a lack of adequate door strength relative to the support posts; hence, the initial vehicle modification consisted of a strengthened door and related structure. Two other modified vehicles were tested which involved changes to the vehicle frame. Additional tests included an unmodified (base line) vehicle for comparison, a developmental vehicle for investigating the performance of a minor modification and to improve methods of data collection and interpretation, and a number of dynamic door and beam component tests.

All test vehicles were 1966 Fords impacted at a nominal velocity of 20 MPH into the CAL pole barrier — a concrete filled, 12¾ O.D. pipe. The impact points were near the center line of the right front door.

Results of the tests showed the excessive compartment intrusion of present designs and demonstrated that improvement is possible with a moderate weight increase and without significantly higher peak decelerations. Additional side modifications are recommended which fully integrate the door reinforcing and frame modification concepts that were investigated in this study.

Appendices describe: (1) tests on a latch mechanism to permit strengthening of the door without interfering with its functional operations, and (2) a comparative study of the effects of accelerometer location and filtering.

Appendix D

1. *INTRODUCTION*

The objective of modifying the side structure of a vehicle has been to obtain a uniform deceleration response in a collision without unacceptable intrusion into the passenger compartment. Permanent deformation, since all test vehicles were impacted against a rigid obstacle, is not undesirable per se, but the effectiveness of any modification requires that the deformation that does occur be used as efficiently as possible to limit the peak compartment deceleration. Passenger compartment intrusion is inherently bad since it can contribute to injuries in side collisions.

The underlying purpose of this research has been to explore the feasibility of reducing injuries and fatalities in lateral collisions. The relationship between those quantities such as deceleration, crush, etc., which can be directly measured during a crash test and the corresponding injury potential of the collision is tenuous and complex. Seating position, restraint devices and human tolerance data are all important variables. Such considerations, however, are not within the scope of this present study which primarily deals with vehicle structure. Some of these aspects of the overall problem were explored in a simplified computer study of car-to-car side collision, Reference 1.

Some differences between modifications to improve behavior in side collisions and those for frontal impacts should be noted. Passenger compartment intrusion is much more of a problems in side collisions; only a small space is available to protect the occupant on the impact side from the impacted object, and intrusion occurs in all but very low speed collisions. The limited space and the intrinsic weakness of conventional side structures of vehicles severely limit the modifications that can be considered.

Appendix D

This report presents the test results of two vehicle modifications for improved performance in lateral impacts — one involving changes to the door and related structure using light gauge sheet metal and the second involving changes to the frame using structural I-beams and tubes. Also presented are results of a base line (unmodified) impact and a developmental crash test, the conclusions drawn from comparing the base line and modified vehicle tests, and results of component tests on doors.

2. *CONCLUSIONS AND RECOMMENDATIONS*

2.1 *Conclusions*

2.1.1 Present automotive design practice permits excessive passenger compartment intrusion in side impacts with narrow, fixed objects at low impact velocity. For a 20 MPH side collision into a fixed pole, permanent external penetration for a conventional (base line) vehicle was 24 inches. The roof, door, and floor structures offer inadequate resistance to side intrusions.

2.1.2 Discernable improvement in structural crashworthiness over a base line (unmodified) vehicle has been demonstrated with vehicle concepts involving modifications for side impact protection. Specifically, these design concepts were (1) a modified side structure incorporating door beams and (2) a more extensive modification including structural changes to both the vehicle frame and passenger compartment. Full-scale crash tests were performed which simulated a side collision into a fixed pole at 20 MPH.

2.1.3 For a moderate weight increase (approximately 20 pounds per door), intrusion resistance can be improved in side impacts at a door opening without causing significantly higher

peak acceleration. This conclusion is based on the performance of the "Mod. 3" vehicle, which included door beams and a number of relatively minor design changes to the passenger compartment structure. Such an approach can improve performance somewhat by increasing lateral loads early in the collision. However, marked improvement in occupant protection in side impacts with fixed objects will require more extensive structural modification of present automobiles, including more substantial frame structures.

2.1.4 A structural concept combining modifications to the vehicle frame and passenger compartment showed significant improvement over the performance of the base line (unmodified) vehicle. This conclusion is based on the performance of the "Mod. 3A(2)" vehicle, for which deformation of the side structure was substantially reduced in a nominal 20 MPH pole collision and the acceleration waveform was more uniform and closer to a 20 g mean value. Additional crashworthiness improvement is believed to be possible through further frame modification and a more complete integration of passenger compartment modification with existing vehicle structure.

2.1.5 Because of the limited acceptable crush distance available in side impacts, it is essential that substantial loads be developed as early as possible. This can be accomplished by the addition of structural members at the periphery of a vehicle, or by methods of transferring impact load to frame members. However, an effective structural design must also limit collapse loads to avoid unacceptably high accelerations which might cancel out any structural improvement in crashworthiness due to reduced intrusion. A uniform compartment acceleration response in the neighborhood of 20 g's appears to be a reasonable design goal for side impact performance.

Appendix D

2.2 *Recommendations*

2.2.1 Additional side structure modifications, aimed at more fully achieving the goals of this research, should be developed and tested. A combination of the passenger compartment and frame modifications already tested is suggested as a first step. Further modifications should more fully integrate added structural components with existing vehicle structure in order to demonstrate design practicability and limit weight increase.

2.2.2 Evaluation of side structure modifications in car-to-car impacts is recommended. In the present research program, side impact tests have been exclusively performed against a narrow, fixed object (stationary pole). This is believed to constitute a most stringent impact condition as well as being quite representative of real-world single vehicle accident exposure. However, the implications of car-to-car side impact performance between conventional and modified vehicles should also be explored. This should include evaluating the effect of modifying the front structure of an impacting vehicle on the performance of conventional and modified side structure.

2.2.3 Side impact tests of structurally modified vehicles at an impact speed greater than 20 MPH are recommended. Test results indicate that higher speed tests would more dramatically demonstrate improvement in structural performance of modified vehicles in side impacts with fixed objects when compared with unmodified vehicle performance.

2.2.4 Rollover testing of vehicles with modified side structures is recommended. Results of the present program indicate that a roll bar structure designed to transfer load to the opposite side and to dissipate energy through controlled collapse

is an attractive component for improving side impact structural performance. A roll-bar structure, as well as other side structure modifications, can likely be beneficial for improving crashworthiness in both side impact and rollover-type accidents. This dual-feature potential of side structure designs should be explored further.

2.2.5 The development and testing of a vehicle frame structure for providing effective collapse in both frontal and side impacts is recommended. It is believed that frame cross members which can be effectively utilized for transferring load and dissipating energy in side collisions could be integrated with a front structure designed to control collapse in frontal impacts.

APPENDIX E — EXHIBIT P-111, TECHNICAL REPORT

Report No. YB-2987-V-14

BASIC RESEARCH IN CRASHWORTHINESS II — DEVELOPMENT AND TESTING OF VEHICLE SIDE STRUCTURE MODIFICATIONS

James E. Greene

CALSPAN CORPORATION
TRANSPORTATION SAFETY DEPARTMENT
4455 GENESEE STREET
BUFFALO, NEW YORK 14221

MAY 1973

Interim Technical Report
Contract No. FH-11-7622

Prepared For:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
WASHINGTON, D.C. 20590

Appendix E

TECHNICAL REPORT STANDARD TITLE PAGE

Title and Subtitle Basic Research in Crashworthiness II — Development and Testing of Vehicle Side Structure Modifications	Report Date May 1973
Author(s) James E. Greene	Performing Organization Report No. YB-2987-V-14
Performing Organization Name and Address CALSPAN CORPORATION P.O. Box 235 Buffalo, New York 14221 (716) 632-7500 (formerly Cornell Aeronautical Laboratory, Inc.)	Work Unit No. N46 Series Contract or Grant No. FH-11-7622
Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Washington, D.C. 20590	Type of Report and Period Covered Interim Technical Report

Abstract

Structural modifications were developed for full-size, frame chassis automobile to improve occupant protection in side collision accidents. These modifications involved redesign of the side pillars, doors, roof and frame structure to increase intrusion resistance of the occupant compartment, and to more effectively dissipate crash energy. The side structure designs are compatible with front structure modifications also developed by Calspan in a parallel effort, resulting in a unified front/side structural concept. Weight increases associated with the side structure modification were on the order of 250 to 275 lbs. of which about 150 lbs. of the structure is also related to the frontal collision mode. Vehicles incorporating side structure modifications were subjected to extensive crash testing, which included perpendicular and oblique vehicle-to-vehicle side collisions at speeds up to 45 MPH, and lateral impacts against a narrow fixed object at 21 MPH. Side impacts by both conventional and

modified front structure striking vehicles were performed. Relative to conventional vehicle (base line) performance, the modified side structures demonstrated significantly enhanced crashworthiness under all of the investigated side impact conditions.

Key Words
crashworthiness
side structure design
modified vehicles
impact testing

Security Classif. (of this report)	Security Classif. (of this page)	No. of Pages
Unclassified	Unclassified	318

Appendix E

FOREWORD

This interim technical report describes the development of side structure modifications related to full-size, frame chassis automobiles. In addition, results of a series of crash tests encompassing a broad range of side impact conditions are presented that enabled an evaluation of the effectiveness of the structural modifications.

This report is submitted in partial fulfillment of a program of research conducted by Calspan Corporation for the National Highway Traffic Safety Administration under Contract No. FH-11-7622. Contract Technical Manager for this project is Mr. Glen Brammeier of NHTSA.

The opinions and findings expressed in this publication are those of the author and not necessarily those of the National Highway Traffic Safety Administration.

This report has been reviewed and is approved by:

s/ Edwin A. Kidd
Edwin A. Kidd, Head
Transportation Research
Department

Appendix E

SUMMARY

Structural modifications were developed for full-size, frame chassis automobiles to improve occupant protection in side collision accidents. These modifications involved redesign of the side pillars, doors, roof and frame structure to increase intrusion resistance of the occupant compartment, and to more effectively dissipate crash energy. The side structure designs are compatible with front structure modifications also developed by Calspan in a parallel effort, resulting in a unified front/side structural concept. Weight increases associated with the side structure modification were on the order of 250 to 275 lbs. of which about 150 lbs. of the structure is also related to the frontal collision mode. Vehicles incorporating side structure modifications were subjected to extensive crash testing, which included perpendicular and oblique vehicle-to-vehicle side collisions at speeds up to 45 MPH, and lateral impacts against a narrow fixed object at 21 MPH. Side impacts by both conventional and modified front structure striking vehicles were performed. Relative to conventional vehicle (base line) performance, the modified side structures demonstrated significantly enhanced crashworthiness under all of the investigated side impact conditions.

Appendix E

1. *INTRODUCTION*

This report contains the results of research directed towards development of structural modifications to improve the crashworthiness of automobiles involved in side collision accidents. The need for more protective side structures was demonstrated in a directly related project effort (reported in Reference 1), in which side impact tests of conventional (unmodified) automobiles were performed. From these "base line" tests, as well as from statistical accident data, it became abundantly clear that today's automobile generally does not offer adequate occupant protection in collisions where the principal impact loads are imposed on the side of the occupant compartment.

Strengthening vehicle side structures, in addition to providing more effective occupant protection, can be a particularly attractive design feature since these structures do not have the potential for increasing collision "aggressiveness" with respect to occupants of other involved vehicles, or to struck pedestrians, as may be the case for modified front structures. Furthermore, enhancing side impact crashworthiness might be a natural first step in the evolution of more crashworthy automobile structures, in anticipation of front structure modifications introduced in the future that could further aggravate the side collision vulnerability problem. It should also be noted that improved side structures could also benefit occupants in rollover accidents.

Based on the established needs for more effective side impact protection, structural modifications were developed for a full-size, 4-door sedan vehicle that involved redesign of specific body and frame components and sub-assemblies related to the apparent side impact vulnerability problem. The major

objectives were (1) to provide the necessary structural integrity to insure containment of occupants within a protective "survival space", and to minimize intrusion of that space (the occupant compartment) from excessive lateral collapse or catastrophic failure of the side structure, (2) to maintain the lateral acceleration environment of the occupant compartment well within limits of human tolerance, and (3) to preserve as much as possible the traditional characteristics of automobile side structures including operational and dimensional requirements, materials and fabrication methods, structural weight, and design aesthetics.

To evaluate the effectiveness of the structural modifications in improving crashworthiness, modified vehicles were subjected to a series of side impact tests. These crash tests encompassed a broad range of moderate to very severe side impact conditions, including perpendicular and oblique collisions by both conventional and modified* front structure striking vehicles at speeds up to about 45 MPH, and collision with a narrow fixed object at a lateral speed exceeding 20 MPH. The test conditions for the modified struck vehicles were equivalent to corresponding base line tests so that direct comparisons between the structural performance of conventional and modified side structures were possible.

General conclusions and recommendations based on the results of the investigation are contained in Section 2. Section 3 presents a discussion of the side structure design concepts, followed by a description of the test methodology in Section 4. Specific details of the structural modifications and associated test data are given in Section 5. Section 6 presents a general

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* Implications of a modified front structure vehicle striking the side of a *conventional* automobile are discussed in Reference 2.

discussion of the overall test results, evaluating the performance of the modified side structures. Referenced reports are listed in Section 7. Appendices to this report completely document the test data and specific test conditions. Results of related component tests of door beam structures and interior protective materials are also included in Appendices.

2. *CONCLUSIONS AND RECOMMENDATIONS*

The following conclusions and recommendations resulted from the research described in this report.

2.1 *Conclusions*

Modifications of conventional full-size automobile side structures were developed that demonstrated marked improvement in structural crashworthiness through a broad range of side impact conditions, as compared to conventional (unmodified) vehicle performance.

These modifications involved redesign of body and frame structural components and sub-assemblies to provide increased lateral occupant compartment strength and side structure energy dissipation capability. Major components affected were the side pillars, doors, roof, and the 3rd and 4th frame cross-members. These "side structure" modifications were designed to be completely compatible with front structure modifications developed by Calspan in a parallel effort. Weight increases related to body and frame modifications were on the order of 200 lbs. and 75 lbs., respectively, for a total net increase not exceeding 275 lbs. However, a large part of this weight increase (about 150 lbs.) related to multipurpose modifications also functional in frontal and rollover collisions.

Appendix E

For *perpendicular* side impact conditions, structural modifications substantially increased intrusion resistance of the passenger compartment for nominal 30 MPH and 45 MPH collisions by conventional and modified front structure striking vehicles.

The following comparisons of static intrusion at locations near the front and rear door centroids indicates the magnitude of lateral intrusion reduction:

* * *

APPENDIX F — OPINION LETTER FROM NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION DATED JANUARY 5, 1981 WITH ENCLOSURE

U.S. Department
of Transportation

400 Seventh St., S.W.
Washington, D.C. 20590

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Jan. 5, 1981

NOA-30

Mr. Daniel L. Thistle
Beasley, Hewson, Casey,
Colleran, Erbstein & Thistle
5th Floor
21 South 12th Street
Philadelphia, PA 19107

Re: *Dawson v. Chrysler Corp.*

Dear Mr. Thistle:

This responds to your letter of December 24, 1980, concerning whether the Federal motor vehicle safety standards establish design criteria and whether compliance with those standards constitutes a defense in a product liability suit.

As explained below, Federal motor vehicle safety standards allow manufacturers latitude to develop a variety of designs to comply with the performance requirements set in the standards. In addition, compliance with a Federal motor vehicle safety standard does not constitute a defense in a product liability suit.

Appendix F

Section 102(2) of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1391(2)) defines a motor vehicle safety standard as "a minimum standard for motor vehicle performance, or motor vehicle equipment performance, which is practicable, which meets the need for motor vehicle safety and which provide objective criteria," Section 103(f) (15 U.S.C. 1392(f)) of the Act also requires a standard to be "reasonable, practicable and appropriate for the particular type of motor vehicle . . . for which it is prescribed."

Each of our safety standards meets the need for motor vehicle safety by specifying requirements for the performance of a particular vehicle system or item of equipment. For example, Standard No. 214, *Side Door Strength,* cited in your letter, sets certain crush resistance requirements that a passenger car must meet in static load test. It does not require the use of a specific design. Thus, manufacturers need not use the most effective design available. They may use any design that will satisfy the performance requirements of the standard.

It also does not require that manufacturers limit their chosen design to the performance levels specified in the standard. The performance requirements are minimum, not maximum, ones. Manufacturers are free to select designs which exceed those in the safety standards.

Although our safety standards meet the need for safety, they do not necessarily attempt to solve the full extent of a particular safety problem. The static test requirements of Standard No. 214 are a prime example. Compliance with those requirements has yielded some significant benefits. However, large numbers of persons continue to be killed or seriously injured in side impact crashes. Accordingly, the agency issued an advance notice of proposed rulemaking (44 FR 70204; December 6, 1979) to

explore the possibility of replacing the existing laboratory tests with dynamic tests that simulate actual side crashes. (A copy of the notice is enclosed.)

In recognition of the foregoing factors, Congress has provided that compliance with a safety standard does not constitute a defense in a product liability suit. Section 108(c) (15 U.S.C. 1397(c)) of the Act provides that compliance with a motor vehicle safety standard "does not exempt any person from liability under common law." The House Report (H.R. Rep. No. 1776, 89th Cong. 2d Sess. (1966)) on section 108(c) states that, "It is intended, and this subsection specifically establishes, that compliance with safety standards is not to be a defense or otherwise to affect the rights of parties under common law particularly those relating to warranty, contract, and tort liability."

Likewise, compliance with a Federal motor vehicle safety standard does not presumptively mean that the design chosen by a manufacturer is safe. Congress gave the agency the authority to order manufacturers to notify owners about safety-related defects in their vehicles and to remedy those defects (15 U.S.C. 1411-1420). On occasion, the agency has required manufacturers to conduct defect notification and remedy campaigns even though the vehicle complied with applicable Federal motor vehicle safety standards. For example, the 1968 and 1969 Ford Mustangs and Cougars complied with the performance requirements set in Standard No. 207, *Seating Systems*. Because the seat back brackets in those seats experienced numerous failures in actual performance that affected the ability of the driver to control the vehicle, the agency ordered the recall of those vehicles.

Finally, the agency's interpretation letter of November 3, 1978, cited in your letter, does not interpret section 108(c) of the Act.

Appendix F

The letter, a copy of which is enclosed, involved the issue of whether a California motor vehicle regulation was preempted under section 103(d) (15 U.S.C. 1392(d)) of the Act by a Federal motor vehicle safety standard. Section 103(d) is limited to the effect of Federal standards on State regulations covering the same aspects of performance. Section 108(c) of the Act governs the effect of Federal standards on product liability suits.

Sincerely,

s/ Frank Berndt
Frank Berndt
Chief Counsel

Enclosures

Appendix F

N40-30 (RBD)
11/8/73

Mr. W. Pudinski
Commissioner
Department of California
Highway Patrol
P.O. Box 898
Sacramento, California 95804

Dear Mr. Pudinski:

This is in response to your letter of October 1, 1973, in which you asked that we review an enclosed opinion by the California Attorney General on the question of preemption of California motor vehicle regulations by Federal standards. The opinion concluded that the California requirements that motorcycles be wired so that their headlamps are lit whenever their engines are running was not preempted. This conclusion was contrary to the position taken in an NHTSA letter of November 14, 1972, to Mr. Edward Kearney.

We adhere to the position stated in the November 14, 1972, letter that the California requirement is preempted, and consider the legal opinion by the California Attorney General to be an erroneous view of the Federal law.

The opinion properly viewed the question as turning on the application of the phrase in §103(d) of the National Traffic and Motor Vehicle Safety Act, 15 U.S.C. 1392(d), "applicable to the same aspect of performance." If the Federal standard (Standard No. 108, 49 CFR 571.108) covers a given aspect of performance, any State requirement must be identical to it. The California opinion relied on the language in the main opinion of one of the Super Lite cases, *Chrysler Corp. v. Tofany*, 419 F.2d 499 (1969),

that preemption should be "narrowly construed", and went on to find that since Standard 108 does not specifically address the matter of wiring the headlamps when the engine is running, that aspect of performance is not covered by the standard and the California law is valid.

More important, however, than the nebulous concept of whether preemption is "narrowly" construed (a concept with which Judge Friendly, concurring in *Chrysler*, did not agree) is the point made at the end of the main opinion, that the administering Federal agency was supporting the State's position regarding the scope of the Federal regulation. The Court quoted the U.S. Supreme Court in *Thorpe v. Housing Authority of Durham*, 393 U.S. 268, 276 (1969):

> [W]hen construing an administrative regulation, 'a court must necessarily look to the administrative construction of the regulation if the meaning of the words used is in doubt. . . . [T]he ultimate criterion is the administrative interpretation, which becomes of controlling weight unless it is plainly erroneous or inconsistent with the regulation.'

In this case the situation is the opposite of that in the Super Lite cases. The NHTSA's position is that the standard does cover the aspect of performance in question. As stated in the NHTSA letter of November 14, 1972, the standard "establishes requirements for motorcycle headlighting, along with special wiring requirements for motorcycles and other vehicles." It is the intent of the NHTSA that its requirements for headlamp performance, configuration, and wiring cover all aspects of performance directly involving headlamps, and thus preempt any non-identical State standards relating to headlamps.

Appendix F

The implication of the California opinion is that any mode of design or performance that is not expressly dealt with in the Federal standard is open to regulation by the States. Such a position is impractical, where the agency's intent is to have a comprehensive, uniform regulation in a given area. In order to preempt the field it would be necessary for a Federal agency to anticipate the imaginative regulatory impulses of future State agencies or legislatures and include in a standard such provisions as, "It is not required that motorcycle headlamps be wired to operate when the engine is running." Congress clearly intended the NHTSA to establish a single set of uniform standards to which manufacturers must comply, and that intent would tend to be defeated by the position taken in the California opinion. Federal regulation has a negative as well as a positive aspect: in determining that there should be certain requirements in an area, we also are deciding against imposing others. The only way to effectuate such a decision is to declare, as we have done here, that our regulation is intended to be exclusive, and to describe as necessary its outer limits.

The California opinion's factual comparison with the Super Lite cases is also inept. The Super Lite itself was a new type of lighting equipment, a supplementary lamp, for which Standard 108 contained no requirements. Headlamps, by contrast, are comprehensively regulated by the standard.

For these reasons, we conclude that the California requirement that motorcycle headlamps be wired to operate when the engine is running is preempted by Standard 108, and void.

While we feel constrained by law to so conclude, I want you to know that I have instructed my staff to consider the merit of

amending the Federal lighting standard to include the California requirement in 108.

Sincerely,

s/ James B. Gregory
Administrator